

Surface Mount Schottky Barrier Diodes Arrays

(Pb) Lead(Pb)-Free

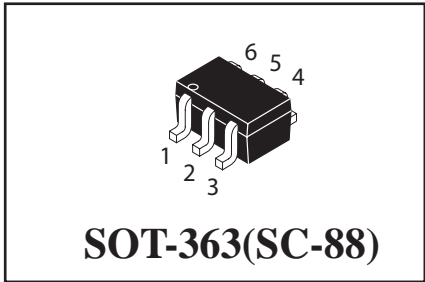
Features:

- * Extremely Fast Switching Speed.
- * Low Forward Voltage.
- * Very Small Conduction Losses.
- * PN Junction Guard Ring for Transient and ESD Protection.

Mechanical Data:

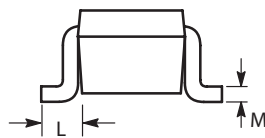
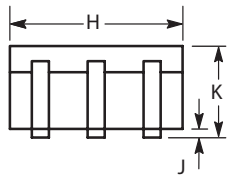
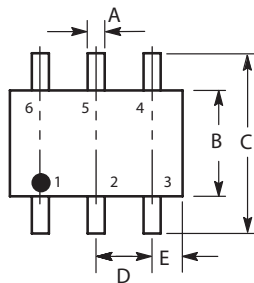
- * Case: SOT-363, Molded plastic.
- * Terminals: Solderable per MIL-STD-202, Method 208.
- * Marking: See Diagrams Below & Page 3.
- * Weight: 0.006 grams(approx).

SMALL SIGNAL SCHOTTKY DIODES 200m AMPERES 30 VOLTS



SOT-363 Outline Dimensions

Unit:mm



SOT-363		
Dim	Min	Max
A	0.10	0.30
B	1.15	1.35
C	2.00	2.20
D	0.65 REF	
E	0.30	0.40
H	1.80	2.20
J	-	0.10
K	0.80	1.10
L	0.25	0.40
M	0.10	0.25

Maximum Ratings ($T_A=25^{\circ}\text{C}$ Unless otherwise noted)

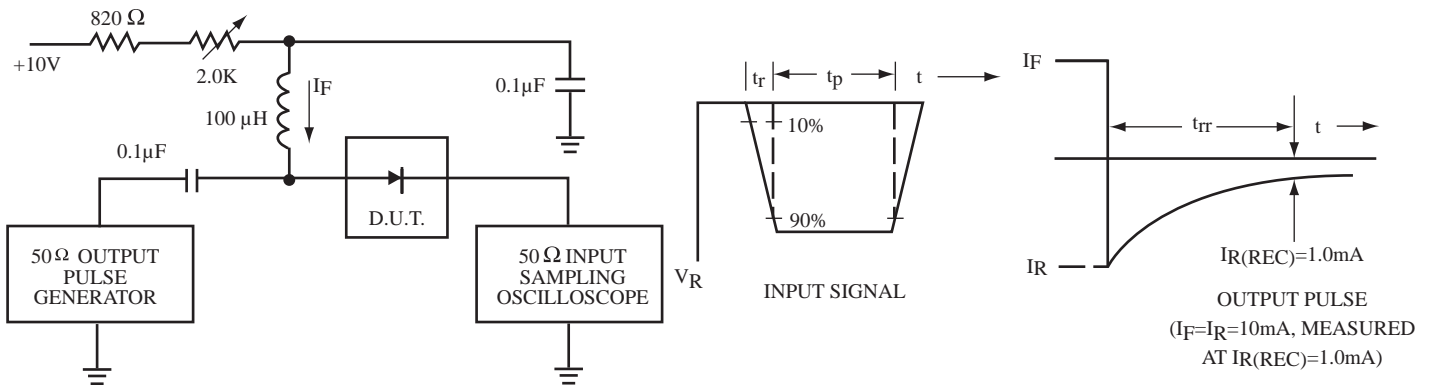
Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	VRRM VRMW VR	30	V
Average Rectifier Forward Current	IF(AV)	200	mA
Peak Repetitive Forward Current Rated VR, Square Wave, 20KHz	IFRM	300	mA
Non-Repetitive Forward Current ($t \leq 1.0\text{s}$)	IFSM	600	mA
Power Dissipation	Pd	200	mw
Thermal Resistance, Junction to Ambient Air	R θ JA	500	$^{\circ}\text{C}/\text{W}$
Operating Junction Temperature Range	TJ	125	$^{\circ}\text{C}$
Storage Temperature Range	Tstg	-55 to +150	$^{\circ}\text{C}$

Electrical Characteristics ($T_A=25^{\circ}\text{C}$ Unless otherwise noted)

Characteristic	Symbol	Min	Typ	Max	Unit
Reverse Breakdown Voltage ($I_R=10\mu\text{A}$)	V(BR)R	30			Volts
Forward Voltage IF=1.0mA IF=10mA IF=30mA IF=100mA	VF			0.32 0.40 0.50 1.00	Volts
Total Capacitance (VR=1.0V, f=1.0MHz)	CT			10	Pf
Reverse Leakage VR=25V	IR			2.0	μA
Reverse Recover Time IF=IR=10mA, IR(Rec)=0.1xIR, RL=100 Ω	Trr			5.0	nS

Device Marking

Item	Marking	Equivalent Circuit diagram
BAT54TDW	KL A	
BAT54ADW	KL 6	
BAT54CDW	KL 7	
BAT54BRW	KL B	
BAT54SDW	KL 8	



- Notes: 1. A 2.0 kΩ variable resistor for a Forward Current (I_F) of 10 mA
 2. Input pulses is adjusted so $I_R(\text{peak})$ is equal to 10 mA
 3. $t_p \gg t_{rr}$

FIG.1 Recovery Time Equivalent Test Circuit

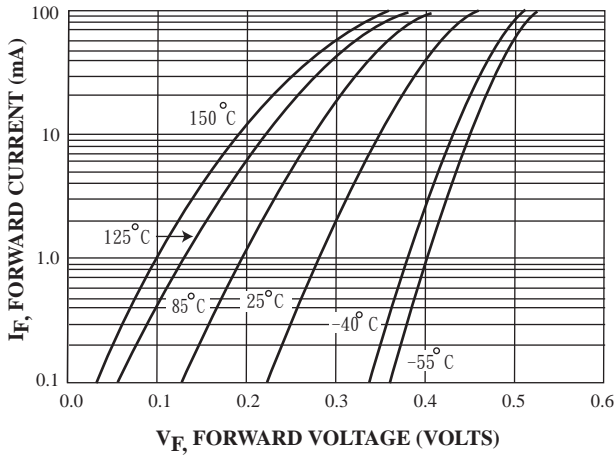


FIG.2 Forward Voltage

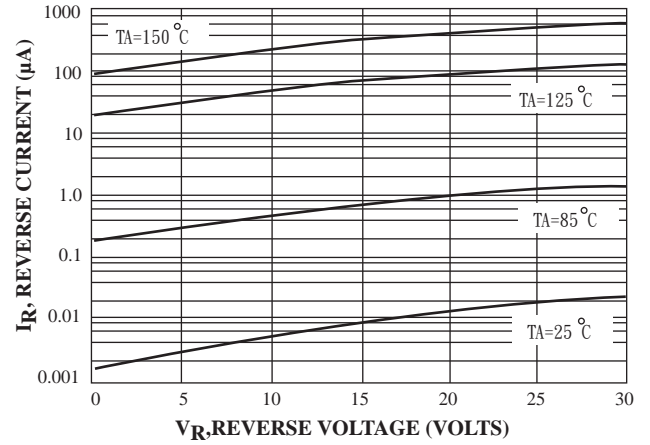


FIG.3 Leakage Current

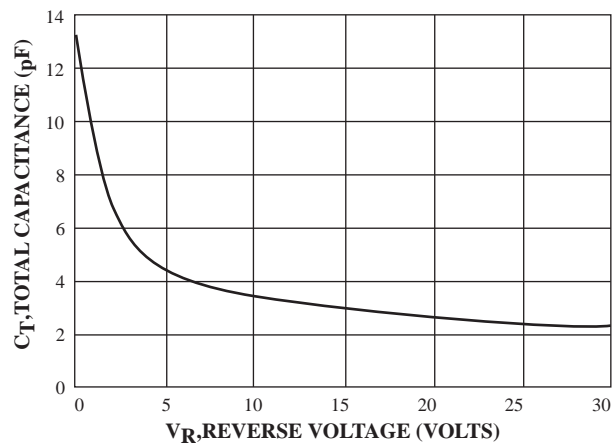


FIG.4 Total Capacitance